

رقم التجربة: No.7 & 8

اسم التجربة: Blood indices and determination of Bleeding and clotting times

الغرض من التجربة:

To provide basic knowledge on **blood physiology** & **Determination of**

### 1- Bleeding time

It is done by Duck's method. It is of great value in detecting vascular abnormality, platelets abnormalities and deficiencies.

### 2- clotting time

It is the time required to form a clot from the beginning of shedding of blood. In the normal case, clotting time is 5-12 min.

الأجهزة والمعدات:-

**Stopwatch , Lancets , cotton , Alcohol , filter paper , sodium or potassium citrate , capillary tube.**

طريقة العمل :

**Bleeding time :**

#### **Procedure:**

1. Clean the tip of your finger with 70% alcohol, and then dry it with a piece of cotton.
2. Puncture the finger with sterile lancet and record the time.
3. At 15 sec intervals wipe the blood drop away completely with filter paper.

4. Continue this procedure until no more blood stains appear on the filter paper.
5. Count the number of blood spots and divide it on 4 to obtain bleeding time in minutes.
6. **Clotting time :**
  - a. **Procedure:**
    7. clean the tip of your finger with 70% alcohol, and then dry it with a piece of cotton
    8. puncture the finger with sterile lancet and obtain large drop of blood ( note the time when the drop appears)
    9. Rapidly draw blood into a non-heparinized capillary by holding the tube in the drop of the blood in a horizontal position. Allow blood to rise at least half the tube
    10. Wait 3 min from the starting of filling and break of a small piece of the capillary tube. Repeat every 30 sec until you notice that the blood has clotted (clotting has occurred when a fine fibrin thread is visible between the two pieces of tubing)
    11. Note the time when clotting first is seen. Divide the number of pieces on 2 to obtain clotting time in min
    12. do not forget the addition of waiting time to the results

النتائج القياسية :-

**The normal value for bleeding time is 1-5 min. Duration of bleeding time depends on quantity and quality of platelets and ability of blood vessels to constrict.**

It is the time required to form a clot from the beginning of shedding of blood. In the normal case, clotting time is 5-12 min.

-This course introduces the student to the basic knowledge regarding the blood indices and their functions . The relation between the physiological function and equipment used to assess the functions. Students will also be able to interpret the clotting and bleeding times .

Determining the clinical implications for both tests , which are :

- factor V deficiency
- sever renal disease
- sever liver disease
- hemophilia A and B
- Glanzmann's disease
- Other disorders that may increase bleeding time
- Vascular Abnormalities
- Von Willibrand disease
- Thrombocytopenia, platelets function defect
- Drugs like salicylates, indomethacin and dextran may prolong bleeding time

